

ATTACHMENT A

Remarks

By this Amendment, references to the claims in the specification have been removed in accordance with US practice. In the claims, independent claims 1 and 7 have been amended for clarity and to better define the invention. The dependent claims have also been amended for better conformance with US practice. It is submitted that the present application is in condition for allowance for the following reasons.

Initially, it is noted that the specification has been amended to remove references to different original claims or parts thereof. In place thereof, as appropriate and self-evident, the referenced portions are now recited. These changes have been made to place the specification in accordance with desired US practice.

In the *Claim Rejections - 35 USC § 102* section of the Detailed Action, independent claims 1 and 7 together with dependent claims 2-3 and 8-9 were rejected under 35 USC § 102 as being anticipated by the Buhrer patent. However, for the following reasons, it is submitted that these claims are allowable over this reference.

As now more particularly claimed in independent claims 1 and 7, the present invention includes a speed profile by which varying trajectories for sand falling from a belt conveyor and filling a flask are known. By use of this speed profile and an associated means for controlling the belt conveyor, a controlled varied distribution, in the transport direction of the belt conveyor, of the sand filling the flask is achieved. This varied filling is advantageous where greater or lesser amounts of sand are needed in different areas of the flask.

The Buhrer patent discloses a method and apparatus for dosing two types of molding sand into a molding flask, using an intermediate container in which the two sands are loaded in

uniform layers. This intermediate container is arranged beneath the discharge devices (belt conveyors) for the reservoirs of the two types of sand. Plate 6, 7, 22, 23 are used to guide the sand which falls off of the discharge devices into the intermediate container, in conjunction with the movement of the intermediate container. After loading of the two types of sand with a desired layer thickness, the layers of sands in the intermediate container are then discharged into the molding flask. As recited in the Buhrer patent, the inventive technique “relies upon the features of moving an intermediate container and/or the discharge devices relative to one another” (see column 3, lines 22-23).

While no control means is shown in the Buhrer patent for controlling the speed of the discharge devices, there is a discussion at the end of the specification about the feed velocity or speed of delivery of the sand. In particular, it is stated that “the speed of delivery of both conveyor bands 3 and 4 can be individually or conjointly regulated, as desired, by appropriately controlling the relevant conveyor speed of travel, for instance” (see column 5, lines 59-62).

From the above, it will be appreciated that one major difference between the present invention as claimed and that of the Buhrer patent is the use in the present invention of a speed profile to effect a variable distribution of the sand. This speed profile provides varying trajectories for the delivered sand relative to the speed of the belt conveyor. Thus, by use of the speed profile, the means for controlling the belt conveyor provides a “controlled variable distribution, in the transport direction of the belt conveyor, of the sand filling the flask”.

The Buhrer patent does not disclose any speed profile, nor even the use of different speeds of the discharge device to effect a variable distribution of the sand in the intermediate container. Rather, the speed of delivery or feed velocity which the Buhrer patent discusses is obviously related only to the amount of sand which is delivered per unit of time in order to effect

a uniform layer. That this discussion has nothing to do with a trajectory and/or a variable distribution is also evident from: a) the use of the plates 6, 7, 22 and 23, which are variously used to guide the two types of sand after the sand falls from the discharge device, which plates would negate any trajectory consideration; b) the movement of the intermediate container (in conjunction with the use of the plates), which would not be needed if trajectory were being taken into account; and c) the fact that it is desired to have a uniform layer of each type of sand, so that a variation in the delivery rate to effect a different trajectory would unnecessarily complicate the desired delivery of a uniform layer.

Therefore, in view of the noted differences between the present invention as now particularly claimed in independent claims 1 and 7 and the invention of the Buhrer patent, it is submitted that amended independent claims 1 and 7 are neither disclosed nor made obvious by the Buhrer patent so that these claims are now allowable. For these same reasons, it is submitted that claims 2-3 and 8-9 dependent from these independent claims are also allowable.

In the following *Claim Rejections - 35 USC § 103* section, dependent claims 5-6 and 10 were rejected under 35 USC § 103 as being obvious over the principal Buhrer patent in view of the JP 360191635. However, it is submitted that these claims are allowable at least for the same reasons as noted above for independent claims 1 and 7 from which they respectively depend.

It will be noted that an IDS accompanies this Amendment.

For all of the foregoing reasons, it is submitted that the present application is in condition for allowance and such action is solicited.